

# RedGard® Uncoupling Mat

## 1 Product Name

RedGard® Uncoupling Mat

## 2 Manufacturer

Custom Building Products  
 Technical Services  
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## 3 Product Description

RedGard® Uncoupling Mat can be used as a waterproofing, high-performance rated crack isolation or moisture mitigation membrane in most tile, porcelain or natural stone installations. It can be applied over challenging substrates such as 24hr old green (young) concrete and single plywood framed floors up to 24" OC (61 cm) OC\*. RedGard® Uncoupling Mat is designed differently than bonded membranes. When exposed to substrate movement, it absorbs stress and preserves the surface and integrity of the tile. RedGard® Uncoupling Mat's bonding layers have reinforced fleece which locks mortar into the mat, to help ensure strong, reliable installations.

\*See precautions for long spans and wide engineered joist spacing.

### Key Features

- Helps prevent cracks in tile and grout
- Use to replace 1/4" (6 mm) backerboard or a second layer of plywood in most tile installations - 1 roll replaces 3-4 sheets of 1/4" (6 mm) backerboard
- Use with polymer modified thin-set mortar - As recommended for bonding porcelain and other difficult to bond tiles
- Reinforced fleece bonding layer locks in mortar for a strong bond No fasteners required
- Made from 70% recycled pre-consumer waste, by weight

### Suitable Tile Types

- Ceramic tile, all types including impervious porcelain
- Dimensionally strong natural stone tile
- Precast terrazzo tile

### Suitable Substrates

- Concrete, cement mortar, masonry
- Concrete
- Cement backerboard
- Exterior plywood and OSB (interior, dry areas only)
- Post-tension concrete – Contact Technical Services
- Lightweight concrete (min. 2000 psi compressive strength)
- Gypsum-based cement topping (min. 2000 psi compressive strength)
- Existing ceramic tile and resilient flooring
- Floor heating systems - contact Technical Services



### Benefits of Product in the Installation

- Elastic, rot proof and resistant to aggressive substances and liquids such as alkalis, solvents and oils.
- Bridges cracks, uncouples floor assemblies from substrates
- Protected by a Lifetime System Warranty with a qualifying mortar.
- Contains 70% recycled material by weight.
- Meets ANSI A118.10 waterproof standards ANSI A11812 Crack Isolation high performance standards (≥ 1/8")
- Allows installation of tile over concrete with high moisture content.

### Limitations to the Product

- Do not bond directly to hardwood, Luan plywood, particle board, parquet, cushion or sponge-back vinyl flooring, metal, fiberglass, plastic.
- Not recommended for exterior applications
- Do not use as a wear surface.
- When setting dimensional stone, subfloor deflection must be minimal-equal or higher resistance of L/720 and additional plywood layers will be necessary.
- Recommended minimum tile size is 2" for foot traffic and wear (if heavy loads and point loading will occur such as in a Moderate rated service use per ASTM C627, a larger/durable tile will be required).
- Contact Custom's Technical Services regarding in-floor heating systems and moisture sensitive tile or natural stone.

### Packaging

- 1 m x 30 m Rolls
- 1 m x 5 m Rolls (Available in select locations)

## 4 Technical Data

### Applicable Standards

American National Standards Institute (ANSI) ANSI A108.01, A108.17, A118.10 and A118.12 American National Standards for the Installation of Ceramic Tile ASTM International (ASTM)

- ASTM C627 Standard Test Method for Evaluating Ceramic Floor Tile Installation Systems Using the Robinson-Type Floor Tester
- ASTM D638 Standard Test Method for Tensile Properties of Plastics ANSI A138.1 Green Tile Standard



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Tile Council of North America (TCNA) TCNA Handbook for Ceramic Tile Installation, TCNA Method EJ171, F125, F147, F148, F128 & F125A

- Terrazzo, Tile and Marble Association of Canada- TTMAC D313F

## Environmental Consideration

Custom® Building Products is committed to environmental responsibility in both products produced and in manufacturing practices. Use of this product may contribute to LEED® certification.

## 5 Instructions

### General Surface Prep

Wet areas must have proper sloping to drains. All surfaces must be structurally sound, clean, dry, and free from contaminants that would prevent a strong bond. Newly prepared concrete must be smooth. Existing surfaces must be scarified and leveled, and all defects must be repaired. Cracks exceeding 1/8" (3 mm) should be treated in accordance with TCNA F125 or TCNA F125A. Below are recommended methods for surface preparation. The use of a bonding primer, CUSTOM's MBP Multi-Surface Bonding Primer, may be an acceptable alternative.

### Bonding to Concrete Surfaces

All surfaces must be structurally sound, clean, dry and free from contaminants such as grease, oil, dirt, dust, curing compounds, waxes, sealers, efflorescence, or any other foreign matter. Concrete must be fully cured and have an effective underslab vapor retarder/barrier. Any existing flooring must be well bonded and stripped of old finish. All substrates should support anticipated live and dead loads in design/performance and meet all international, local, regional or provincial code requirements.

### Bonding to Lightweight Cement and Gypsum Surfaces

Gypsum substrates must have compressive strength  $\geq 2000$  psi and must first be primed or sealed per manufacturer's instructions. When using thin-set applied RedGard® Uncoupling Mat, all gypsum substrates must be primed or protected from water using RedGard® Waterproofing and Crack Prevention Membrane or Custom® 9240 Waterproofing and Anti-Fracture Membrane.

### Bonding to Plywood Surfaces

Plywood flooring including those under resilient flooring must be structurally sound, built to industry standards, and deflection should not exceed L/360 for tile or L/720 for natural stone. Minimum 5/8" plywood over 16" OC joist spacing is required for physically strong tiles. Additional plywood layers and/or mortar beds will be required for natural stone or dimensionally weaker tiles such red-bodied and agglomerate compositions.

When installing tiles and dimension stone over engineered joist systems 19.2" -24" OC (48.76 – 60.96cm) note that deflection ratings are measured directly over the joist. Considerable deflection can occur between the joists, especially over long spans and when not properly bridged to prevent joist sway. Install heavy island counters or pre-load to a similar weight prior to installing mat and tiles. Perimeter and other movement joints detailed in TCNA EJ171 must be installed. Cut mat at expansion joints designed for differential movement. Use seam tape when waterproofing.

## Bonding to Existing Surfacing Material

Resilient flooring or plastic laminates must be well-bonded, clean and free of all contaminants. Use [MBP - Multi-Surface Bonding Primer](#) or roughen the surface by sanding or scarifying, rinse and allow to dry. Do not sand flooring containing asbestos. For existing well-bonded ceramic tile, mechanically abrade with carborundum stone. Rinse and allow to dry. The use of an approved respirator when sanding is recommended.

## Movement Joint Placement

Expansion joints and cold joints, as described in ANSI A108.01, should never be bridged with setting material. They must be brought through the tile work and filled with an appropriate elastomeric sealant, such as Custom's 100% Silicone. Contact Custom's Technical Services for additional information regarding questions about the proper treatment of control or saw cut joints. Refer to TCNA EJ171, F125 & F125A.

## Application of Product

### Mortar and Notch Trowel Requirements

As described in the TCNA Handbook for Ceramic Tile Installation, a polymer modified dry-set mortar (ANSI A118.4; A118.15) is required for the installation of porcelain tile, and an ANSI A118.11 mortar should be used when bonding to exterior glued plywood. Custom® Building Products supports the use of polymer modified mortars whenever required. For tile over 15" on one or more sides, use a polymer modified mortar designed for large and heavy tile.

Using the appropriate mortar and apply using a 5/16" x 1/4" (7.9 x 6.4 mm) V-notch trowel or a 1/4" x 1/4" (6.4 x 6.4 mm) square notch trowel (recommended) to the substrate. Be careful not to trowel more mortar than you can cover in the specified open time with RedGard® Uncoupling Mat.

### Installing RedGard® Uncoupling Mat

Place the RedGard® Uncoupling Mat into the troweled mortar, fleece side down. Embed the matting into the bonding mortar using a float or screed joining sections of mat, simply align end and side sections of adjacent sheets. Occasionally check the transfer of the bonding mortar to the mat by lifting a corner of the mat to check coverage. Proper installation results in full contact between the fleece webbing and the thin-set mortar.

### Waterproofing / Vapor Management

Each roll of RedGard® Uncoupling Mat is waterproof and effectively restricts moisture vapor emissions. For these applications, install mats parallel, eliminating as many seams as possible. Ensure that all edges are butted tight and use [RedGard® Seam Tape](#) (sold separately) according to instructions.

### Installing Tile Over RedGard® Uncoupling Mat



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Tile can be installed over RedGard® Uncoupling Mat as soon as it has been pressed into place. While working on the mat, place boards on the mat directly under you to prevent damage. Flat trowel mortar on the mat in a reachable area where tile is to set right away, being sure to completely fill all of the depressions. Then, apply additional mortar using a trowel that is appropriate for the size of the tile. Completely embed the tiles in the setting material. Periodically remove and check a tile to ensure that full coverage is being attained. Refer to the NTCA [Trowel & Error](#) video for instructions.

## Tile and Stone Installation

Install tile or stone with a Custom® Building Products polymer-modified mortar that meets ANSI A118.4, A118.15 or A118.11 standards.

## Cleaning of equipment

Clean tools and hands with water before material dries.

## Storage

Protect from freezing. Store in a cool, dry area.

## Health Precautions

**WEAR IMPERVIOUS GLOVES, SUCH AS NITRILE, MASK, AND EYE PROTECTION.**

## Conformance to Building Codes

Installation must comply with the requirements of all applicable local, state and federal code jurisdictions.

## 6 Availability & Cost

Item Code	Size	Package
RGM2323	1 m X 30 m	Roll
RGM254	1 m X 5 m	Roll

## 7 Product Warranty

Obtain the applicable **LIMITED PRODUCT WARRANTY** at [www.custombuildingproducts.com/product-warranty](http://www.custombuildingproducts.com/product-warranty) or send a written request to Custom Building Products, Inc., Five Concourse Parkway, Atlanta, GA 30328, USA. Manufactured under the authority of Custom Building Products, Inc. © 2023 Quikrete International, Inc.

## 8 Product Maintenance

Properly installed product requires no special maintenance. Do not use as a wear surface.

## 9 Technical Services Information

For technical assistance, contact Custom technical services at 800-272-8786 or visit [custombuildingproducts.com](http://custombuildingproducts.com).

## 10 Filing System

Additional product information is available from the manufacturer upon request.

## Related Products

RedGard® Waterproofing and Crack Prevention Membrane

RedGard® Seam Tape



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## Coverage

Size	Coverage
1 m x 30 m	323 sq. ft. (30 sq. m)
1 m x 5 m	54 sq. ft. (5 sq. m)